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| APPLICATION NO. | FILING DATE | FIRST NAMED INVENTOR | ATTORNEY DOCKET NO. | CONFIRMATION NO. |
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| 10/574,617 | 04/05/2006 | Naoto Yokoyama | 0033-1073PUS1 | 2104 |
| 2292 | 7590 | 07/16/2008 | | |
| BIRCH STEWART KOLASCH & BIRCH | | | EXAMINER | |
| PO BOX 747 | | | CHANG, CHARLES S | |
| FALLS CHURCH, VA 22040-0747 | | | | |
| | | | ART UNIT | PAPER NUMBER |
| | | | 2881 | |
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Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Notice of the Office communication was sent electronically on above-indicated "Notification Date" to the following e-mail address(es):

mailroom@bskb.com

Office Action Summary

Application No.

10/574,617

Applicant(s)

YOKOYAMA ET AL.

Examiner

CHARLES CHANG

Art Unit

2881

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 23 May 2008.
2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-17 is/are pending in the application.
4a) Of the above claim(s) 1-3 and 5-11 is/are withdrawn from consideration.
5) ☐ Claim(s) _____ is/are allowed.
6) ☒ Claim(s) 4 and 12-17 is/are rejected.
7) ☐ Claim(s) _____ is/are objected to.
8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
10) ☒ The drawing(s) filed on 4/5/2006 is/are: a) ☐ accepted or b) ☒ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☒ Information Disclosure Statement(s) (PTO/SF/08)
Paper No(s)/Mail Date 5/23/2008, 2/13/2008, 4/5/2006
4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date _____
5) ☐ Notice of Informal Patent Application
6) ☐ Other: _____

DETAILED ACTION

Election/Restrictions

1. Claims 1-3 and 5-11 are withdrawn from further consideration pursuant to 37 CFR 1.142(b), as being drawn to a nonelected invention, there being no allowable generic or linking claim. Applicant timely traversed the restriction (election) requirement in the reply filed on May 23, 2008.
2. Applicant's election with traverse of claims 4 and 12-17 in the reply filed on May 23, 2008 is acknowledged. The traversal is on the ground that the examiner has not showed any type of burden. This is found not persuasive. Restriction for examination purposes as indicated is proper because all these inventions listed in this action are independent or distinct and there would be a serious search and examination burden if restriction were not required because one or more of the following reasons apply:
 - (a) the inventions have acquired a separate status in the art in view of their different classification;
 - (b) the inventions have acquired a separate status in the art due to their recognized divergent subject matter;
 - (c) the inventions require a different field of search (for example, searching different classes/subclasses or electronic resources, or employing different search queries);
 - (d) the prior art applicable to one invention would not likely be applicable to another invention;

(e) the inventions are likely to raise different non-prior art issues under 35 U.S.C. 101 and/or 35 U.S.C. 112, first paragraph.

The requirement is still deemed proper and is therefore made final.

Drawings

1. Figures 11-12B should be designated by a legend such as --Prior Art-- because only that which is old is illustrated. See MPEP § 608.02(g). Corrected drawings in compliance with 37 CFR 1.121(d) are required in reply to the Office action to avoid abandonment of the application. The replacement sheet(s) should be labeled "Replacement Sheet" in the page header (as per 37 CFR 1.84(c)) so as not to obstruct any portion of the drawing figures. If the changes are not accepted by the examiner, the applicant will be notified and informed of any required corrective action in the next Office action. The objection to the drawings will not be held in abeyance.

Claim Rejections - 35 USC § 102

2. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

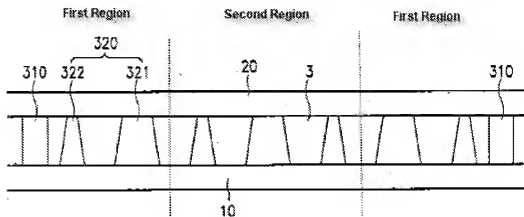
A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

3. Claim 4 is rejected under 35 U.S.C. 102(e) as being anticipated by Cho et al. (US 20040114087).

Regarding claim 4, Cho discloses a liquid crystal display panel comprising: two substrates (10, 20) fixed together by a seal member (310) with their main surfaces opposed to each other; liquid crystal (3) sealingly stored in a region surrounded by said two substrates and said seal member and a plurality of columnar spacers (320) arranged in the region surrounded by said two substrates and said seal member, wherein said columnar spacers include: a first columnar spacer (321), and a second columnar spacer (322) being higher than said first columnar spacer when receiving no load; said first columnar spacer is arranged in a first region near an inner side of said seal member and a second region located inside said first region; and said second columnar spacer is arranged in said second region (Fig. 2 below and Fig. 3).

FIG.2



4. Claims 12 and 14-17 are rejected under 35 U.S.C. 102(e) as being anticipated by Kim et al. (US 20050185129).

Regarding claim 12, Kim discloses a substrate with a spacer comprising a substrate (100); and a spacer (300) formed on said substrate, wherein said spacer has

at least a first spacer portion (81), and a second spacer portion (82) formed above said first spacer portion, and an upper portion of said first spacer portion has a larger diameter than a bottom of said second spacer portion (Fig. 6).

Regarding claim 14, Kim discloses a substrate with the spacer, wherein assuming that an upper portion of said spacer has a diameter of C, and said spacer has a height of H from the bottom to the upper portion, said spacer has a diameter of $(1.8 \times C)$ or more at the bottom, and has a diameter of $(1.05 \times C)$ or less at a height of $(0.85 \times H)$ from the bottom of said spacer (section 0050).

Regarding claims 15-16, Kim discloses a panel having the substrate with the spacer; an opposed substrate (200) opposed to said substrate with the spacer, and a liquid crystal layer (250) interposed between said substrate with the spacer and said opposed substrate (Fig. 6).

Regarding claim 17, Kim discloses a method of manufacturing a panel, comprising the steps of: forming a frame-like seal member on a substrate surface of one of said substrate with the spacer and said opposed substrate; applying a liquid crystal material to an inside of a frame of said seal member; and adhering said substrate with the spacer and said opposed substrate together to form said liquid crystal layer (sections 0008-0009).

Claim Rejections - 35 USC § 103

5. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the

invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

6. Claim 13 is rejected under 35 U.S.C. 103(a) as being unpatentable over Kim in view of Kijima et al. (US 6259500).

Regarding claim 13, Kim does not disclose a substrate with the spacer, wherein the upper portion of said first spacer portion has a groove surrounding said second spacer portion in a plan view. However, such an arrangement is known in the art and an example is shown by Kijima. Kijima teaches a substrate with the spacer, wherein the upper portion of said first spacer portion (95) has a groove surrounding said second spacer portion in a plan view (Fig. 11B). It would have been obvious at the time of the invention to one of ordinary skill in the art to use such an arrangement in the structure of Kim to prevent a variation in cell thickness.

Conclusion

The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. Miyazaki et al. (US 6888608), Hasegawa et al. (US 5499128), Kurauchi et al. (US 6323921), and Hiroshima et al. (US 6705584) exhibit similar structure features as disclosed by the invention of the applicant.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to CHARLES CHANG whose telephone number is (571)270-5024. The examiner can normally be reached on Mon-Fri 7:30A.M. - 5:00 P.M. EST.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Robert Kim can be reached on (571) 272-2293. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

CC

/ROBERT KIM/

Supervisory Patent Examiner, Art Unit 2881